

AZ Department of Public Safety Memorandum Dated September 2, 2008
(David Felix, Executive Officer, DPS to
Lisa Dee Meyerson, Strategic Initiatives Unit Chief, GITA)

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Sent: Tuesday, September 02, 2008 2:29 PM
To: Lisa Meyerson
Cc: Georgene Ramming; CKnight@azdps.gov
Subject: Demo Project Recommendation

Here is our final overview and recommendation for the immediate future of the PSCC interoperability demonstration project.

ATTACHMENT

**PSCC Demonstration Project Overview
And Recommendation for Further Action**

The PSCC Demonstration Project was conceived and implemented to demonstrate one technical and operational approach to interoperability. The Demonstration Project leverages the existing regional wireless networks in Phoenix and Yuma by enhancing the coverage and by connecting the two networks to allow for one large composite network.

At the beginning of this endeavor, the expansion of the Phoenix and Yuma systems to enhance coverage was fairly straightforward. Both Phoenix and Yuma had existing contracts with Motorola to provide the RF site equipment to add to their existing expandable systems. However, the methodology to connect the Phoenix and Yuma systems was an area that could be improved upon with some cutting edge development that Motorola was working on.

The original project plan called for the installation of consoles (located at DPS) to facilitate audio patching of talk-groups between the Phoenix and Yuma systems. Later, Motorola was also able to provide a prototype, Inter Subsystem Interface (ISSI) to demonstrate a superior method of system interconnection.

On June 30, 2008, technical staff from DPS, Phoenix, Yuma, and Motorola demonstrated the first radio calls between units on the Phoenix and Yuma systems utilizing an ISSI based on Project 25 standard protocol. This was a historical event because it was the first demonstration of its kind between live systems. We also demonstrated the console patch methodology and can see that the prototype ISSI improves on audio quality, reduced latency, with the promise of future advancements in messaging and mobility management.

To date all hardware associated with the infrastructure of the demonstration project are in place, configured and tested, functionally linking the Phoenix and Yuma systems. With all technology elements in place, the Department recommends no further development of the project until such time as two major decisions points are readdressed and answered:

1. The Statewide Concept for Design

This study and engineering analysis was completed by Federal Engineering but has not undergone further review, discussion and approval by the PSCC. The concept for design ultimately drives future decisions which will impact interoperability and “operability” capabilities of all public safety users in Arizona. The design and functionality of these systems will affect future funding decisions related to state agency basic radio needs and possible transition to 700/800 megahertz.

2. Governance Model Document

The Governance Committee of the PSCC developed a high level, first draft of a state interoperability radio system governance model. This document has not been reviewed, modified or approved by the PSCC. A governance structure is needed to clearly identify ownership and long-term maintenance for shared systems operation. Governance will also define similar issues for additional equipment, sharing of infrastructure or installation and use of portable or mobile radio equipment installed in vehicles.

Without these critical elements in place, further development of the operational component of the demonstration project could potentially be misguided or a waste of funding. At this time, even a high level estimate of the staffing, labor, planning and equipment requirements is difficult to assess until a decision has been made with regard to the conceptual design and governance. These discussions should be facilitated by GITA staff with the appropriate technical experts and stakeholders when PSCC activities are restarted in September.

In addition further development of the demonstration project at this point through the efforts of DPS staff will lead to confusion with current and future partners from both the public safety and commercial communities. We recommend that now is the best time to suspend the Demonstration Project to allow GITA to establish itself, have staff study and become familiar with the interoperability issue and technology and begin to act as the clear project lead going forward.

Other considerations where state funding priorities are concerned surround the continued funding for the analog-to-digital transition of the DPS microwave network. This project is a high priority and will require an estimated additional \$40 million to complete the western and northern loops. The microwave infrastructure supports daily, mission critical operable communications for DPS, Department of Corrections (DOC), Department of Transportation (ADOT), Game and Fish and State Land.